

**REMARKS**

Claims 1-4 are all the claims pending in the application.

Claim 1 is rejected under 35 U.S.C. § 102(e) as being anticipated by Sawada et al. (US 6,255,678 B1).

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hafeman et al. (US 5,164,319) in view of Marks, et al. (US 6,203,758).

The Applicants traverse the rejections and request reconsideration.

**Improper Finality**

The Examiner has rejected claim 1 based on a newly cited reference Sawada, even though the claims have not been amended substantively in the previous amendment. Therefore, the Applicants respectfully submit that the present Office Action has been improperly designated as a Final Office Action (see MPEP 707.07 (a)). The Applicant's representative discussed the matter with Supervisory Examiner Bell, who agreed with the Applicant's position. Accordingly, the Examiner is requested to withdraw finality of the pending Office Action.

**Inconsistent Rejections**

In providing a response to the arguments made by the Applicants in the response filed May 15, 2003, the Examiner cites Sawada. This is believed to be improper because, Sawada was never cited before and the Applicants did not respond to a rejection based on Sawada. Therefore, referring to features provided in Sawada to make counter-arguments to the Applicant's arguments against Hafeman is believed to be inconsistent.

Further in the same sub-section, the Examiner refers to both Hafeman and Sawada, even though the rejections based on Sawada is solely based on anticipation. It is well-known that teachings of two references can not be combined for a rejection based on anticipation.

**Rejection of claim 1 under 35 U.S.C. § 102(e) based on Sawada**

Claim 1 is rejected under 35 U.S.C. § 102(e) as being anticipated by Sawada. The cited reference Sawada discloses a chemical CCD sensor. However, it does not disclose a molecular recognition layer formed on a sensor face of the chemical CCD. The molecular recognition layer, according to the present invention, is required to selectively capture molecules of a certain chemical substances. However, Sawada does not disclose (or even remotely suggest) such a molecular recognition layer on the sensor face of the chemical CCD. The Examiner's attention is drawn to the fact that the sensor in Sawada does not have a molecular recognition layer. In fact there is no mention of a molecular recognition layer anywhere in Sawada.

Therefore, claim 1 is not anticipated (or even remotely suggested by) Sawada.

**Rejection of claims 1-4 under 35 U.S.C. § 103(a) based on Hafeman and Marks**

The cited reference Hafeman discloses measuring of capacitance change of second capacitor formed just under a first capacitor (insulation layer) in a semiconductor. This cannot be construed to be a chemical CCD. In the chemical CCD device, as used in the present invention, electrical charges are injected to a plurality of potential wells. The depth of the potential well varies in response to a quantity of a specific chemical. The depth of the potential well, which represents the quantity of the specific chemical, is converted to electrical charges.

The electrical charges are then measured as a representation of the quantity of the specific chemical. According to the invention, the accumulated charges are successively transferred and repeated to enhance the sensitivity.

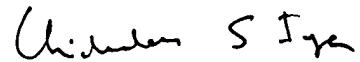
Hafeman does not disclose such a chemical CCD. Further, Marks has no teaching on chemical CCDs to overcome the deficiency noted in the teachings of Hafeman. A skilled artisan would not have been motivated to make the device of the present invention, as recited in claims 1-4, from the combined teachings of Hafeman and Marks.

**CONCLUSION**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Chid S. Iyer  
Registration No. 43,355

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

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